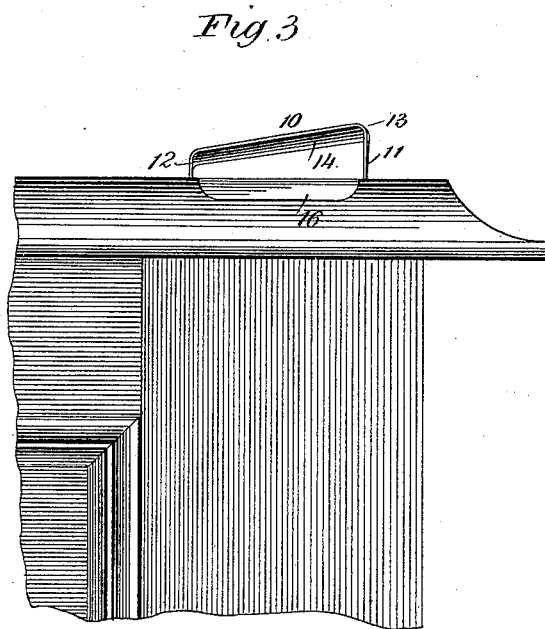
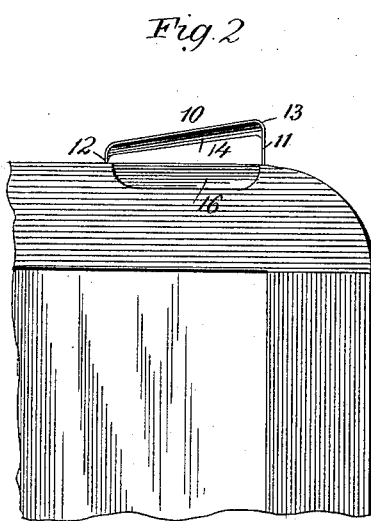
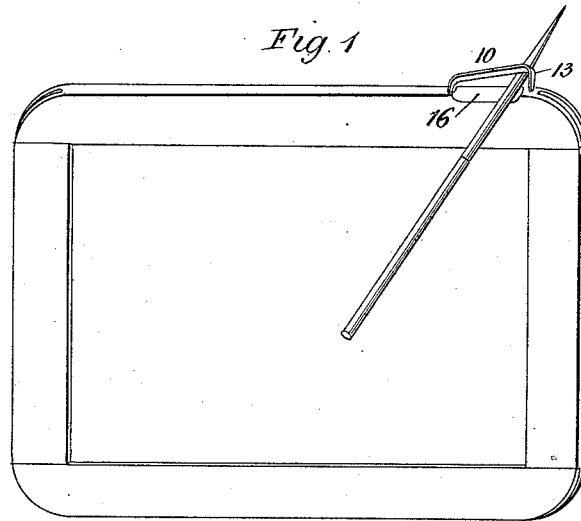


(Model.)

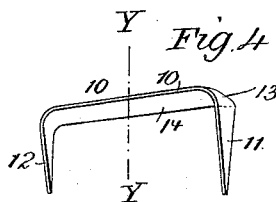
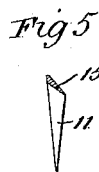
F. DUNWORTH
PENCIL SHARPENER.

No. 422,126.

Patented Feb. 25, 1890.



WITNESSES:
Paul J. J. J.
C. Sedgwick



INVENTOR:
F. Dunworth
BY
Munn & Co.
ATTORNEYS.

UNITED STATES PATENT OFFICE.

FRANK DUNWORTH, OF NEW YORK, N. Y.

PENCIL-SHARPENER.

SPECIFICATION forming part of Letters Patent No. 422,126, dated February 25, 1890.

Application filed August 16, 1889. Serial No. 320,991. (Model.)

To all whom it may concern:

Be it known that I, FRANK DUNWORTH, of New York city, in the county and State of New York, have invented a new and Improved Pencil-Sharpener, of which the following is a full, clear, and exact description.

My invention relates to an improvement in pencil-sharpener especially adapted for application to the frame of a slate, to a desk, or to an equivalent support, and has for its object to provide a sharpener of simple and durable construction, whereby a slate or lead pencil may be sharpened by being drawn in contact with the device and a more or less tapering point be imparted to the pencil, as may be desired.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of a slate, illustrating the application of the device thereto and a pencil in position for sharpening. Fig. 2 is a partial side elevation of a slate, illustrating the device enlarged and in perspective. Fig. 3 is a similar view of the device, illustrating it applied to a desk and adapted for use in connection with a lead-pencil. Fig. 4 is a perspective view of the device detached from its support, and Fig. 5 is a section on line *y y* of Fig. 4.

The principal feature of the invention consists of a knife 10, constructed in staple form, as illustrated in Fig. 4, one perpendicular member 11 being preferably longer than the opposite member 12, and the bow or cutting section 13 of the knife is beveled downward upon each side to form a lower cutting-edge 14, whereby the said bow or cutting section is essentially wedge-shaped in cross-section, as illustrated at 15 in Fig. 5.

In applying the knife to a slate-frame the members 11 and 12 are driven in the edge of the frame, as illustrated in Figs. 1 and 2, in such manner that the cutting-edge will be at an angle to the edge of the frame, which position is readily assumed by the knife as it is driven by reason of one of its straight mem-

bers being shorter than the other. For convenience in driving, the extremities of these members are sharpened.

In the frame, at one side of the device, a recess 16 is produced, the base-wall whereof is upwardly inclined, and the said recess extends across the edge of the frame beneath the cutting-edge from member to member of the knife.

When the knife is applied to a desk, a similar recess is formed in that portion of the desk into which the knife is driven, as illustrated in Fig. 3.

To sharpen a pencil, it is introduced beneath the knife at the elevated end of the same, and the pencil is then drawn quickly in the direction of the lower end in contact with the cutting-edge of the blade, the first position of the pencil being illustrated in Fig. 1. By this means the surface of the pencil contacting with the cutting-edge of the knife is tapered, and a regular tapering point is produced by repeating this operation and turning the pencil each time it is drawn downward.

I desire it to be understood that by setting the knife at a greater angle than illustrated the recess in the knife-support may be dispensed with.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with a table, frame, or other support, of a staple-shaped knife having a downwardly-inclined bow-section provided with a lower cutting-edge, the cutting-edge of which knife is at an angle to the table, frame, or other support, substantially as and for the purpose specified.

2. The combination, with a table, frame, or other support provided with a recess having an inclined base-wall, of a staple-shaped knife driven in the frame or support over the recess, one end being lower than the other, the bow-section of which knife is essentially wedge-shaped in cross-section, substantially as shown and described, and for the purpose specified.

FRANK DUNWORTH.

Witnesses:

J. F. ACKER, Jr.,
C. SEDGWICK.